

ABSTRACT OF THE DISCLOSURE

An optical cross-connect switch employing pallets of mirror assemblies configured as an array, wherein each mirror assembly includes a mirror that is rotatable in a two-axis system to steer a beam in 2-dimensional space. Each 5 mirror assembly includes a mirror module that can be rotated in relation to a first axis as well as in relation to a second axis that is perpendicular to the first axis. The mirror modules are suspended by wires in a manner that allows the pitch and roll of the mirror module to be controlled. Coils and magnets are employed to generate magnetic fields which create a rotating torque in each of the two 10 rotational axes. By controlling the magnetic fields that are generated, the degree of rotation can in turn be controlled. The configuration provides for a practical, area efficient, bi-directional, randomly addressable optical cross-connect switch design that can employ conventional materials and processes.